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No. 29

Crops Protection Research Branch
Crops Research Division, ARS
U. S. Department of Agriculture
Beltsville, Maryland

PILOT FOOD STAMP PROGRAM

Its Effect on
Retail Food
Store Sales in
Fayette County, Pa.,
and McDowell
County, W. Va.

Agricultural Economic Report No. 29

U. S. Department of Agriculture
Economic Research Service
Marketing Economics Division

PREFACE

A Food Stamp Program was initiated by the Department on a pilot basis in eight selected areas of the country in mid-1961 to test out such a program for helping needy families to obtain more nearly adequate diets and to assist in alleviating problems in our farm economy resulting from the current abundance of production. Under this program persons meeting stipulated eligibility requirements have their food purchasing power increased through allotments of food coupons which can be used to purchase foods in regular commercial outlets. In the pilot areas the Stamp Program replaced direct donations of federally-owned foods to needy families.

On the basis of results in the original eight pilot areas, the Food Stamp Program was expanded during 1962, and further expansions are planned for 1963, all on an experimental basis.

This report is part of an overall research effort to evaluate effects of a Pilot Food Stamp Program on food consumption, nutritional intake of participants, food retailing, and farm income. The research was undertaken by the Economic Research Service, the Agricultural Research Service, and the Statistical Reporting Service, all within the U. S. Department of Agriculture.

This report describes that part of the research dealing with the effect of the Food Stamp Program on total sales and selected food groups in retail food stores. Specifically, it reports changes in sales in sample food stores in Fayette County, Pa., and McDowell County, W. Va., nearly one year after the Food Stamp Program was put in operation. An earlier report showed changes after a lapse of about 4 months of the program period. The research was conducted under the general supervision of William S. Hoofnagle, with Robert E. Frye as project director.

PREVIOUS REPORTS PUBLISHED ON FOOD STAMP PROGRAM EVALUATION

Frye, Robert E.

Effect of the Pilot Food Stamp Program on Retail Food Store Sales.

U. S. Dept. Agr., Agr. Econ. Rpt. 8. April 1962.

Reese, Robert B., and Adelson, Sadye F.

Food Consumption and Dietary Levels Under the Pilot Food Stamp Program.

U. S. Dept. Agr., Agr. Econ. Rpt. 9. June 1962.

U. S. Agricultural Marketing Service.

The Food Stamp Program -- An Initial Evaluation of the Pilot Projects.

AMS-472. April 1962.

The initial eight pilot areas were:

City of Detroit, Michigan

Franklin County, Illinois

Floyd County, Kentucky

Virginia-Hibbing-Nashwauk area in
Minnesota

San Miguel County, New Mexico

Silver Bow County, Montana

Fayette County, Pennsylvania

McDowell County, West Virginia

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Washington, D. C.

April 1963

PILOT FOOD STAMP PROGRAM
ITS EFFECT ON RETAIL FOOD STORE SALES

in Fayette County, Pa., and McDowell County, W. Va.

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HIGHLIGHTS

In Fayette County, Pa., and McDowell County, W. Va., two of the eight areas where the Food Stamp Program was initiated during mid-1961, dollar volume of sales in sample retail food stores averaged 7 percent higher during a 4-week period in April-May 1962 than in the same period a year earlier, prior to initiation of the Food Stamp Program. The largest percentage sales gains recorded by the sample stores were for produce, followed by meat and grocery items.

Sales gains were recorded in all sizes of retail food stores but in varying degrees. Very small and fairly large stores gained 8 percent in dollar volume and medium stores 10 percent, while large and small stores gained smaller amounts. Proportion of total sales represented by food coupons in each size of store also varied. Neither gains in sales nor variations in coupon redemptions were of sufficient magnitude in favor of any one group to indicate that store size was a decisive factor in attracting coupon-using customers.

Value of food coupons redeemed by all sample stores in both areas averaged 8 percent of sales volume.

The 1962 findings confirm the favorable effect the Food Stamp Program had on retail food sales in these two areas during the fall of 1961 when the Program had been in operation about 4 months. And since economic factors, such as population, employment, and prices, changed very little between survey periods, most of the sales gains recorded in sample food stores in the fall 1961 and spring 1962 surveys can be attributed to the Pilot Food Stamp Program.

In Fayette County, Pa., a sample of customers were observed, of which about 5 percent were coupon users, and their purchases of 15 selected items were recorded. Except for frozen juice, soft drinks, and cigarettes, a smaller proportion of the customers in the sample were purchasing the 15 selected items during April-May 1962 than was true a year earlier. However, the customers who did buy the items tended to buy larger amounts in April-May 1962, except for nonfat dry milk, frozen juice, and cigarettes. Also, the number of produce items purchased in April-May 1962 was smaller than a year earlier, but this measurement is related to the variety of items purchased rather than to the quantities purchased.

Food coupon users apparently purchased most of their major food needs soon

after purchasing their monthly or semi-monthly allotment of food coupons. This, in large part, may account for the fact that coupon users were spending \$8.03 per store visit during the 1962 survey period compared with \$5.10 for nonusers of coupons. Similarly, for the 15 selected items observed, the proportion of customers buying and the average quantities bought by those coupon users who purchased such items were generally larger than for nonusers of coupons.

BACKGROUND

In mid-1961, a Food Stamp Program was inaugurated by the U. S. Department of Agriculture on a pilot basis in eight economically depressed areas of the country. The purpose was to test the program as a method of expanding utilization of agriculture's abundant resources and improving the nutritional intake of needy families by increasing their food purchasing ability. In the pilot areas, the Food Stamp Program replaced the existing Commodity Donation Program as it applied to direct distribution of Federally donated foods to needy families; but it did not affect food donations to schools or other nonprofit institutions serving needy people.

The Food Stamp Program is administered by the U. S. Department of Agriculture; State welfare and local governmental agencies certify the eligibility of applicants and issue coupons. Participating families are required to buy coupons in amounts equal to the value they normally could be expected to spend for food. Then, they are issued enough extra coupons, free of charge, to permit them to buy a more nearly adequate diet. The difference between the cash paid by participants and the total value of coupons issued to them represents the Federal Government's contribution to the Program.

Participants use the coupons as they would cash to buy food at prevailing prices in retail food stores or other authorized commercial establishments. 1/ Except for alcoholic beverages, tobacco products, and imported food items, users may purchase all foods but must do it on current basis because coupons cannot be used to pay for items bought on charge.

To evaluate the effectiveness of the Food Stamp Program, the Department conducted special studies. Previous research to evaluate the impact of the Program on retail food sales showed that dollar sales in a sample of retail food stores in the 8 pilot areas were up 8 percent after the Program had been in operation about 4 months. Highest percentage sales increase was noted for grocery items, 9 percent, followed by produce, 8 percent, and meat, about 7 percent. Value of food coupons redeemed represented about 6 percent of sales for the 8 areas, and store size did not appear to be a significant factor in attracting food coupon business. More detailed findings of previous studies as well as descriptions of the Program have been published in earlier reports. 2/

Information presented in this report is based on surveys in a sample of retail food stores conducted in the spring (April-May) of 1962 in two of the original pilot areas, Fayette County, Pa., and McDowell County, W. Va. The objectives were to determine the continuing or longer-term effect of the Program on retail food store sales and to supplement findings of earlier surveys reported in "Effect of the Pilot

1/ Food wholesalers, specialty stores, and some milk and bakery home delivery routes may also be authorized to accept food coupons in payment for eligible foods.

2/ The eight original pilot areas and published reports describing and evaluating the Pilot Food Stamp Program are listed on page iv.

Food Stamp Program on Retail Food Store Sales." The same research methodology and procedures described in that report were followed in the April-May 1962 survey. With some exceptions, due to dropouts and suspensions, sample stores in Pennsylvania and West Virginia were the same as in 1961. Where changes in sample stores occurred, adjustments of the data have been made to insure comparability of sales for both test periods.

In Fayette County, in addition to retail store sales, information was obtained on customer purchases of selected items during all test periods. During the 1962 April-May test, about 5 percent of all customers observed were coupon users.

DESCRIPTION OF THE TWO TEST AREAS

General economic conditions in both pilot areas have been characterized by a substantial and persistent labor surplus. Labor-market reports indicated that in Fayette County, Pa., the larger of the two areas, employment increased by about 2 percent between the 1961 and 1962 spring survey periods. In McDowell County, W. Va., employment decreased almost 2 percent during the same period. These changes would be expected to increase sales slightly in Fayette County and to reduce sales a little in McDowell County.

In Fayette County nearly 13.5 percent of the population participated in the Food Stamp Program during the spring of 1962. The extra food coupons issued free of charge to participants during the test period represented approximately 4 percent of estimated annual sales of all food establishments in the county.

In McDowell County nearly 20 percent of the population participated in the Food Stamp Program during the spring of 1962 and the value of the free coupons received by participants was about 7.5 percent of estimated annual food sales. ^{3/} For the first 13 months of operation, free coupons represented over 47 percent of the total food coupons issued in McDowell County, and about 39 percent in Fayette County (fig. 1).

FOOD STAMP PROGRAM'S EFFECT ON SALES

The gain in sales shown by sample stores indicated that the Program contributed measurably to retail food store sales. Sales in a sample of retail stores during April-May 1962 were nearly 7 percent higher in Fayette County and nearly 8 percent higher in McDowell County than during the pre-stamp period a year earlier. For the two areas, sales averaged 7 percent above the same period a year earlier. These increases were only slightly less than in September-October 1961, when coupons had been in use about 3 to 5 months. ^{4/}

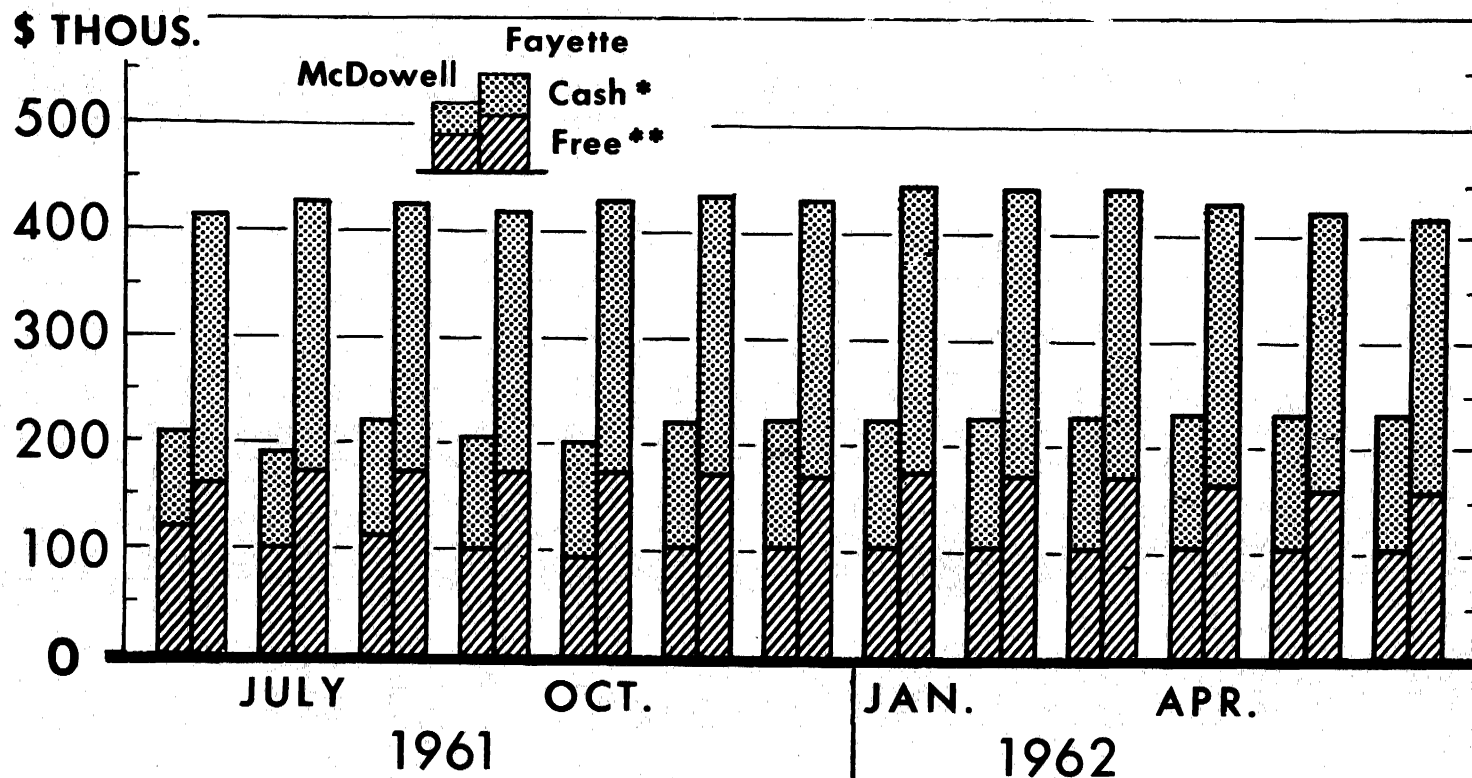
Although all three major departments of the sample stores showed sales gains during April-May 1962 as a result of the Food Stamp Program, produce and meat

^{3/} Population data were obtained from the 1960 Census of Population, and dollar volume by food establishments from the 1958 Census of Business for both areas. Number of residents participating and the amount of food coupons issued in each area were furnished by the Food Distribution Division, U. S. Agricultural Marketing Service.

^{4/} September-October 1961 data were adjusted for seasonal differences to permit comparisons with April-May 1961. April-May 1961 data have been revised to include only those stores which participated in the 1962 spring test.

VALUE OF FOOD COUPONS ISSUED

*Pilot Food Stamp Program, McDowell Co., W. Va.
and Fayette Co., Pa., June 1961-June 1962*



* VALUE OF COUPONS PAID FOR BY PARTICIPANTS.

** VALUE OF COUPONS GIVEN BY THE FEDERAL GOVERNMENT IN EXCESS OF AMOUNTS PURCHASED FOR CASH.

U. S. DEPARTMENT OF AGRICULTURE

NEG. ERS 1850-63 (3) ECONOMIC RESEARCH SERVICE

Figure 1

showed larger percentage increases than groceries. ^{5/} For the two areas dollar sales for produce averaged 10 percent higher than a year earlier, meat 8 percent, and groceries 6 percent (table 1). These reflect increased purchases in quantity as there were no major price increases between periods.

Table 1.--Sales volume of selected food groups in sample retail food stores in 2 pilot areas before and after food coupons were introduced, 2 test periods

Area and food group	April-May 1961	April-May 1962	Percentage change
	: before coupons : were introduced ^{1/}	: coupons in use	
	<u>Dollars</u>	<u>Dollars</u>	<u>Percent</u>
Fayette County, Pa.:			
Meat.....	531,699	567,202	+6.7
Produce.....	153,395	167,464	+9.2
Groceries ^{2/}	1,255,548	1,336,203	+6.4
Total.....	1,940,642	2,070,869	+6.7
McDowell County, W.Va.:			
Meat.....	194,405	217,568	+11.9
Produce.....	62,492	70,700	+13.1
Groceries.....	571,828	605,188	+ 5.8
Total.....	828,725	893,456	+ 7.8
Both areas:			
Meat.....	726,104	784,770	+ 8.1
Produce.....	215,887	238,164	+10.3
Groceries.....	1,827,376	1,941,391	+ 6.2
Total.....	2,769,367	2,964,325	+ 7.0

^{1/} These figures differ from those reported in Agricultural Economics Report No. 8 because they have been revised to include data from only those stores which participated in the 1962 April-May test.

^{2/} In this study the word groceries is meant to include dairy products, eggs, and, in some stores, frozen foods.

IMPACT BY STORE SIZE

Store size apparently was not a significant factor in attracting the food purchasing power generated by the Pilot Food Stamp Program. In both test areas, all sizes of stores had higher sales during April-May 1962 than before the Food Stamp Program went into operation (table 2). In each size, 70 to 80 percent of the stores had higher sales. Food coupon redemptions as a percent of total sales were also fairly well divided among the various store size classifications. The value of food coupons redeemed by sample stores in Fayette County represented 7 percent, and in McDowell County 11 percent, of total sales volume (table 3). The proportion of stores showing sales gains and the level of coupon redemptions were almost identical with those recorded for the September-October test period in 1961.

^{5/} In both test areas grocery sales included dairy products, eggs, and, in some stores, frozen foods.

Table 2.--Percentage increase in volume of sales in sample retail food stores after introduction of coupons, in 2 pilot areas, by size of store

: Increase from April-May 1961 to April-May 1962 in --			
Store size <u>1/</u>	Fayette County, Pa.	McDowell County, W. Va.	Both areas
	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>
Large.....	5.9	<u>2/</u>	5.7
Fairly large.....	9.0	6.1	8.2
Medium.....	9.5	9.8	9.6
Small.....	1.4	4.7	3.0
Very small.....	16.6	2.3	8.0
All sizes.....	6.7	7.8	7.0

1/ Size classification of store by annual volume of business:

Large.....\$1 million and over
 Fairly large.....\$375,000 to \$1 million
 Medium.....\$100,000 to \$375,000
 Small.....\$50,000 to \$100,000
 Very small.....Under \$50,000

2/ Large and fairly large stores combined to avoid identifying individual store performance.

Table 3.--Food coupon redemptions as percentage of dollar sales in sample retail food stores in 2 pilot areas, by size of stores, April-May 1962

Store size <u>1/</u>	Fayette County, Pa..	McDowell County W. Va.	Both areas
	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>
Large.....	7	<u>2/</u>	7
Fairly large.....	6	8	8
Medium.....	7	12	9
Small.....	7	12	10
Very small.....	17	9	13
All sizes.....	7	11	8

1/ See table 2, footnote 1, above, for size classification.

2/ Large and fairly large stores combined to avoid identifying individual store performance.

CUSTOMER PURCHASES

A sample of customers buying was observed in each sample store in Fayette County during the latter part of the second and fourth weeks of each survey period. The proportion of customers purchasing 15 selected items and the average quantity they purchased were noted. ^{6/} Results are expressed as a rate per 100 customers observed (percentage) to eliminate differences due to variation in total customers observed during each period (tables 4, 5, and 6).

All Customers

For all customers observed, of which about 5 percent were food coupon users, the average amount spent for all items bought during a shopping trip was \$5.20 in the spring of 1962 and \$4.16 a year earlier when coupons were not in use. Except for produce, soft drinks, and frozen juice, the proportion of customers buying the 15 items observed was somewhat less than in the same period in 1961. However, the average size of purchase for most items was larger. The most significant increases in size of purchase were noted for soft drinks, eggs, ice cream, margarine, cake or pastry mix, milk, and butter. Nonfat dry milk and cigarettes, however, showed substantial declines in size of purchase (table 4). Some of the other items observed also showed sales changes, but of less magnitude.

Data obtained from observation showed considerable variation in proportion of customers buying the items observed and in quantity purchased. While this phase of the study did not allow for determining all causative factors connected with observed sales variations, the overall change was of such magnitude as to indicate that the added purchasing power created by the Food Stamp Program, coupled with the discontinuance of the Commodity Donation Program, measurably increased purchases in retail food stores. It is recognized, however, that the observation data do not permit a direct comparison with coupon user's purchasing practices before the Program, and that the data do not provide exact quantitative measures of meat and produce purchases.

Coupon Users

A greater proportion of coupon-using customers bought the items for which purchase data were recorded and bought them in larger quantities than did customers not using coupons (tables 5 and 6). This was noted particularly for flour, margarine, fresh milk, and fresh eggs. In part this reflects the loss of such food items as powdered eggs, powdered milk, butter, lard, and all-purpose flour which prior to the Food Stamp Program were given to most coupon users along with other foods under the Commodity Donation Program. Other items bought in significantly larger quantities by coupon users were soft drinks, frozen dinners, produce, and meat items, which may be a reflection of the added purchasing power and coupon users' desire for variety in improving their diets made possible by the Food Stamp Program. The average expenditure per store visit during the 1962 survey period was \$8.03 for coupon users and \$5.10 for noncoupon customers.

^{6/} Products observed were randomly pre-selected and the quantity purchased of each were recorded in standard weight or volume measures where applicable or possible. However, purchases of meat, bread, cake mixes, frozen dinners, and produce were recorded by number of different packages bought. This was a satisfactory indicator of comparative quantity for most items but for meats and produce it was more precisely an indication of variety than quantity bought.

Table 4.--Number of purchasers of selected items and average quantity bought in sample retail food stores in Fayette County, Pa., 2 test periods

Commodity	Purchasers per 100 customers observed		Average quantity purchased per customer buying			
	April-May 1961	April-May 1962	Unit	April-May 1961	April-May 1962	Percentage change
	<u>Purchasers</u>	<u>Purchasers</u>		<u>Equivalent units</u>	<u>Equivalent units</u>	<u>Percent</u>
Milk, fresh.....	24.4	22.1	Quart	2.1	2.3	9.5
Nonfat dry milk.....	0.6	0.4	<u>1/</u> Quart	<u>2/</u> 16.4	9.8	-40.2
Butter.....	6.1	4.9	Pound	1.1	1.2	9.1
Margarine.....	12.0	9.9	Pound	2.3	2.6	13.0
Eggs, fresh.....	9.4	9.2	Dozen	1.5	1.8	20.0
Ice cream.....	5.4	5.0	Quart	1.9	2.2	15.8
Meat.....	52.5	46.8	Item	2.9	2.9	--
Bread.....	37.3	28.3	Loaf	1.6	1.7	6.2
Flour.....	4.9	3.2	Pound	10.5	11.8	4.8
Cake or pastry mix..	7.4	5.7	Boxes	1.8	2.0	11.1
Frozen dinners.....	2.0	1.6	Number	2.7	2.8	3.7
Frozen juice.....	2.7	2.9	6-oz. can	3.4	3.3	-2.9
Soft drinks.....	6.6	7.5	6-pack	1.0	1.4	40.0
Produce.....	40.6	41.3	Item	2.5	2.4	-4.0
Cigarettes.....	21.2	19.3	Pack	4.3	4.0	-7.0

1/ Equivalent. On a reconstituted basis.

2/ Revised.

Table 5.--Average quantity of selected items bought per purchaser in sample retail food stores, Fayette County, Pa., April-May 1962

Commodity	Unit	With coupons	Without coupons	Difference (nonusers = 100)
		Equivalent units		Percent
Milk, fresh.....	Quart	3.2	2.2	45.5
Nonfat dry milk.....	² /Quart	8.0	9.9	-19.2
Butter.....	Pound	1.4	1.2	16.7
Margarine.....	Pound	4.0	2.5	60.0
Eggs, fresh.....	Dozen	2.4	1.7	41.2
Ice cream.....	Quart	2.1	2.2	-4.5
Meat.....	Item	3.4	2.9	17.2
Bread.....	Loaf	1.9	1.7	11.8
Flour.....	Pound	19.6	9.8	100.0
Cake or pastry mix....	Box	1.9	2.1	-9.5
Frozen dinners.....	Number	3.5	2.8	25.0
Frozen juice ¹ /.....	6-oz. can	2.2	3.4	-35.3
Soft drinks.....	6-pack	2.6	1.3	100.0
Produce.....	Item	2.9	2.3	26.1
Cigarettes.....	Pack	2.8	4.0	-30.0

¹/ Omitted from Agr. Econ. Rpt. No. 8.

²/ Equivalent. On a reconstituted basis.

Table 6.--Number of customers purchasing selected items per 100 customers observed in sample retail food stores, Fayette County, Pa., April-May 1962

Commodity	With coupons	Without coupons	Difference (nonusers = 100)
	Purchasers	Purchasers	Percent
Milk, fresh.....	31.0	21.7	42.9
Nonfat dry milk.....	0.5	0.4	25.0
Butter.....	4.0	4.9	-18.4
Margarine.....	21.5	9.4	128.7
Eggs, fresh.....	21.5	8.7	147.1
Ice cream.....	6.5	4.9	32.7
Meat.....	71.0	45.7	55.4
Bread.....	35.5	28.0	26.8
Flour.....	9.0	2.9	210.3
Cake or pastry mix....	9.5	5.5	72.7
Frozen dinners.....	2.0	1.6	25.0
Frozen juice ¹ /.....	2.0	2.9	-31.0
Soft drinks.....	8.0	7.5	6.7
Produce.....	50.0	40.9	22.2
Cigarettes.....	10.0	19.7	-49.2

¹/ Omitted from Agr. Econ. Rpt. No. 8.

Coupon users purchased more of the items for which purchase data were collected and spent more money on the average for all items purchased than nonusers, but this does not mean that coupon-using customers had greater total purchasing power. It is more likely a reflection of the different shopping behavior of people who participated in the Food Stamp Program. Food coupon users tended to shop almost immediately after receiving their coupons.

PRICES OF SELECTED FOOD ITEMS

Prices were also recorded for 15 selected food items in both test areas. The composite price for the 15 items in the two areas in the spring of 1962 was nearly 1 1/2 percent higher than in the spring of 1961. Most of the increase in the composite price after the Food Stamp Plan was in operation reflected substantial rises in the price of lettuce and bananas. Several other items also increased in price, but only moderately. Frozen orange concentrate, chicken parts, and ground beef showed measurable price declines during both periods after the Food Stamp Program was in operation. But these price changes were not believed to be of sufficient magnitude to affect the overall purchase pattern.

Price changes for the 15 items in the sample stores, and on a national basis as reported by the Bureau of Labor Statistics, are shown in table 7.

Table 7.--Percentage change in price of selected food items in sample retail food stores

Items	Change from April-May 1961 to April-May 1962 in --	
	Fayette and McDowell	National sample <u>1</u> /
	Counties	
	<u>Percent</u>	<u>Percent</u>
Chicken.....	0.1	-0.5
Hamburger.....	-2.7	-0.8
Milk, fresh.....	1.5	-1.2
Nonfat dry milk.....	2.2	1.6
Butter.....	1.8	-1.6
Margarine.....	2.4	0.7
Bread.....	-0.7	1.0
Potatoes.....	9.4	-5.6
Lettuce.....	28.0	38.5
Bananas.....	26.4	8.5
Cake or pastry mix..	3.6	-0.6
Flour.....	3.8	0.4
Dry beans.....	-2.9	3.0
Frozen orange juice..	-12.7	-17.3
Ice cream.....	-1.8	-0.6
Total.....	1.4	0.3

1/ BLS series.